

Creating an Educational Intervention to Address Obesity Among Adolescents in Primary Care

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Abstract

Obesity management interventions have been reinforced by several agencies such as the Centers of Disease Control and Prevention, United States Preventive Services Task Force and on a community level from the Washington State Department of Health. The University of Washington Neighborhood Clinics is a primary care network serving in the Puget Sound area. The network has been impacted by the increase in obese pediatric patients and is seeking to reduce obesity in pediatric patients.

Physical and nutritional group education has shown to increase healthy lifestyles and decrease depression in pediatric patients with low interventional needs in many studies (Batista et al., 2017; Boeckner et al., 2017; Damschroder et al., 2017). Given the low risk of obesity education, and high reward, an educational intervention was designed based off previous evidence-based interventions to increase healthy lifestyle among adolescents at University of Washington Neighborhood Clinic Kent DesMoines.

This educational intervention is aimed at decreasing adolescent obesity at University of Washington Neighborhood Clinic Kent DesMoines. A second aim is to encourage healthy lifestyles among adolescents. The intervention includes the following components; diet modification decreasing portions, consuming less ultra-process foods, eating more vegetables, eating regular meals as a family, increasing physical activity, limiting nonacademic screen time, and goal setting (Cardel, et al., 2019)

Next steps will include implementation of educational classes and evaluating this intervention.

Keywords: obesity, adolescents, behavior, education, primary care, intervention

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Introduction

Obesity is a public health problem affecting adults and children nation-wide. Obesity is standardly calculated by body mass index (BMI) defined as a numerical calculation greater than or equal to thirty. Obesity is associated with health problems such as increased risk for coronary heart disease, type 2 diabetes, various types of cancer, gallstones, and disability (Centers of Disease Control and Prevention (CDC), 2015). With about half of men and women in the United States afflicted with obesity, a serious health crisis is obvious (Ogden, Carroll, Fryar, & Flegal, 2015). As of 2008, that latest statistics, the estimated annual medical cost of obesity in the United States is \$147 billion (CDC, 2008). Specifically, childhood obesity has systemic effect on communities, and at national levels. About one third of children and adolescents between age six and nineteen are overweight or obese (Ogden et al., 2012). On a national level this has significant impacts in cost, with an estimate of fourteen billion a year in 2012 (Cawley, 2012), and even influences military readiness with up to twenty eight percent of young adults unable to qualify due to weight (Mission Readiness, 2010). The risk of obesity persisting into adulthood is higher in overweight and obese adolescents than in overweight and obese younger children (Gurnani, et al., 2015).

Within Washington state, obesity rates have risen over time, and disproportionately affect lower income, and lower educated adults (Washington State Department of Health, 2016). The Washington State Department of Health (2016) latest statistics also show a significant increase in tenth graders who are now considered obese with a sharp rise. This is an uptick across all populations in Washington state, not only revealing a crisis at an individual level, but a community level. With adulthood obesity linked to many health implications, it is prudent to

address obesity in children and adolescents with aggressive interventions with a goal to reduce weight to under eighty fifth percentile prior to adulthood.

It remains clear that the current evidence trends suggest that clinicians in primary care should be first, screening for obesity, and second, offering intensive obesity management. What is not as clean cut, and perhaps a gap in knowledge, is how and what to offer as “multicomponent behavioral interventions”.

This project aims to create an educational intervention that will be used at the University of Washington Neighborhood Clinic in Kent DesMoines to reduce obesity among adolescent patient population.

Literature Review

Search Strategy

A literature review was performed in October and November of 2019 focused on current data related to pediatric education classes to create an impact on obesity within primary care. EBSCOHost, and PubMed databases were utilized, excluding trials greater than five years of age. Randomized control trials and quasi-experimental were preferred. Searchable key words used were as follows: pediatric, obesity, obesity management, chronic illness, intervention and education. A wide-net search using all above keywords resulted in fifteen thousand articles in October 2019. This was reduced to roughly one thousand with key word combinations, and inclusion criteria of articles posted after 2014. Lastly, articles involving randomized controlled trials with a setting in primary care reduced search to eight articles. In addition, American Academy of Pediatrics, Obesity Medical Association, and American Medical Association was consulted in this project.

The following themes were identified in the articles under review; health impact of childhood obesity, interventions for weight loss, and barriers to weight loss.

Health Impact of Childhood Obesity

Health impact of childhood obesity was a clear theme in all studies reviewed. Children who are obese report similar quality of life scores to children who are undergoing cancer treatment (Gurnani, et al., 2015). Clearly, psychiatric consequences of obesity have been reported including higher levels of anxiety, depression, low self-esteem, bullying, and binge eating disorder (Gurnani, et al., 2015). Eighteen percent of twelve to nineteen-year olds with obesity have prediabetes, forty three percent of children with obesity have dyslipidemia, and twenty five percent of 5-11 year olds with obesity have hypertension. The health impact of childhood obesity is vast and attacking childhood obesity at a primary care level prior to developing obesity related co-morbidities impacts is key to lowering obesity risk in all children and adults.

Interventions for Weight Loss

Multiple educational interventions were discovered in the pediatric literature review. Physical activity, dietary educational classes, pamphlet education, and one on one health coaching all of which reduced BMI in pediatric patients as a target aim (Barnett, 2017, Taveres et al., 2015). Barlow (2007) presented expert recommendations for the treatment of overweight and obese children and adolescents. These recommendations include a system for evaluating and identifying resources, such as pediatric dietitians, training staff members for diet and activity assessments, and referral systems.

The American Academy of Pediatrics (Barlow, 2007) has several helpful guidelines for guiding clinicians and stakeholders in reducing obesity in children and adolescents. Weekly

visits for a minimum of eight to twelve weeks seem to be most efficacious (Barlow, 2007). It is further recognized by the American Medical Association that at least 26 contact hours over two to twelve months is most advantageous (Cardel, et al., 2019). The goal should be weight maintenance or gradual weight loss until BMI is less than eighty fifth percentile. Weight loss should not exceed 1 lb/month for children 2 to 5 years of age, or 2 lb/week for older obese children and adolescents (Bays, et al., 2019). As of October 2019, the American Academy of Pediatrics recommends bariatric surgery be considered for youth with BMI > 35 with comorbid disease or for those with BMI > 40 (Armstrong, et al., 2019).

Simple interventions do have a significant impact on weight loss, even when compared to more intensive interventions across a wide range of participants (Batista, 2017; Boeckner, et al., 2017; Damschroder, et al., 2017). The STAR Trial detailed reduction in BMI in patients using self-guided behavioral targets such as reduced screen time, more sleep, less sugary beverages, and increased physical activity (Taveras, et al., 2015). Most recently published practice guidelines for adult obesity contain one hundred and twenty-three clinical practice recommendations (Garvey et al., 2016). This is an extraordinary amount of information to process and individualize for every patient. Using a multidisciplinary team to focus on behavior change in the setting of group classes can minimize resources and maximize benefits.

Barriers to Weight Loss

There are many barriers to individual weight loss such as concerns about treatment efficacy, negative attitudes towards obese patients, availability of food, poverty and mental illness (Barnes, et al., 2015; Bourassa et al., 2017; Owen, et al., 2017). The studies reflect similar results between aggressive interventions (in person one-on-one education), versus group education (Boff et al., 2017, Hageman et al., 2017, & Lutes et al., 2017), suggesting that cost

may not be a barrier. Attendance is a barrier to engagement in any weight loss program and echoed across studies (Chamberline et al., 2017).

Gaps in the Literature

Clear gaps found when reviewing the literature for obesity management in the population of pediatrics. Several bodies recommend multidisciplinary behavioral intervention, but it is yet to be clearly defined how to do such an intervention (Cardel, et al., 2019; Barlow, 2007). Closing this gap in care by first creating a multidisciplinary behavioral intervention, and secondly implementing intervention across different settings is cornerstone in reducing pediatric obesity in primary care.

Rationale

As of September 2018, the United States Preventive Services Task Force recommends that clinicians offer or refer adults and children six years and older with a body mass index of thirty or higher to intensive, multicomponent behavioral interventions (2018). University of Washington Neighborhood Clinic Kent DesMoines has more than 1,700 pediatric patients (University of Washington Medical Center, 2019). Using Analytical Explorer within the electronic medical record at Kent DesMoines primary care clinic, there are thirty percent of teens ages 13-18 years old who are overweight or obese.

The Transtheoretical Model provides a nice framework for assessing readiness of change and transitions from each stage during change (precontemplation, contemplation, preparation, action, and maintenance). In 2014, the Eating and Activity Teen study found that one unit increase in change motivation, increased moderate to vigorous activity minutes in both boys and girls (Graham, Wall, Larson, & Nurmakr-Szuainer, 2014), suggesting that this model can aid in assessing success in patients and obesity education interventions. When suggesting a group

wellness program to patients of any age, this model should be considered in accounting for the patient's readiness for change. Obesity education has strong literature support and is expected impact overall pounds' loss, waist circumference, blood pressure, and minutes exercised (Boff et al., 2017; Hageman et al., 2017; Lutes et al., 2017), if patients attend.

Specific Aims

This project is designed to create the curriculum that will be used at the University of Washington Neighborhood Clinic Kent DesMoines. The purpose of this project was to produce a cost-effective class curriculum, for use in primary care, to target healthy lifestyle habits in overweight and obese pediatric patients at the University of Washington Neighborhood Clinic Kent DesMoines.

This curriculum is intended to eventually have the following aim; To increase overweight and obese patient involvement (x =510 patients) in healthy lifestyle education at University of Washington Neighborhood Clinics to 3% (15 patients) through attendance of a class utilizing project curriculum by December 2021.

Methods

Setting

The population served at the University of Washington Neighborhood Clinics is diverse. This network accepts all state and private medical insurances, with a heavy mix (> 50%) of Medicaid at Kent DesMoines Primary Care clinic. University of Washington Neighborhood Clinics is seeking less expensive interventions to reduce obesity among adolescents. This clinic is within a large health system with an available registered nurse, and nutritionist on site at baseline to assist with the implementation of education classes. Future classes utilizing project curriculum will be provided during business hours and do not require extra staff, electric, or

security reducing overall cost for the network. This will allow the proposed educational intervention to be more feasible and generalizable to other University clinics in the future. As insurers move from volume pay to quality pay (Centers of Medicare & Medicaid Services, 2017), healthcare institutions supporting weight loss efforts can have a lasting impact on patients, and the network overall.

Evolution of Project

The build of this curriculum for a future wellness program has many elements that evolved over time. The curriculum was built based on the demand of one clinic and was built with consideration of the population and Pediatrician requests discovered in Phase I of this project. In order to build the curriculum, the American Academy of Pediatrics was consulted because it provides primary care-based based weight reduction recommendations for overweight adolescents (Barlow, 2018).

Intervention

A three-phase project was introduced. Phase I being a survey of onsite pediatricians. Phase II being curriculum build, and Phase III being class implementation. Phase one and two are complete for this project.

Phase I

Phase I was completed by an onsite presentation and survey of onsite pediatricians and family practice physicians at University of Washington Neighborhood Clinic Kent DesMoines. The goal was to sample needs and create buy in for an educational intervention at the anticipated intervention clinic. The survey included patient educational needs, class topic ideas, class time, date availability, and was used to identify pediatricians willing to participate in onsite visits with family and patients post intervention.

Phase II

Using survey results from Phase I and evidence based educational interventions in pediatric obesity management a curriculum outline was built. Six class outlines were produced and are ready to be put in place to structure an educational intervention for adolescents in primary care. Nutrition and physical activity-based education interventions are most widely found in literature review and were heavily weighted to build the six classes (Batista, 2017; Cardel, 2019; Obesity Medical Association, 2019).

Measures & Outcomes*Phase I*

One hundred percent of surveys were returned from January 2020 through March 2020. A qualitative review of the survey results was conducted in March 2020. The results of survey review were used to consider class topics in the build of the curriculum. All survey participants felt that behavior changes should be included in the curriculum followed by activity and healthy cooking. Two topics, self-esteem and screen time, were added to class curriculum due to survey responses. Participants were split including all teens (42%) vs teens who are overweight (50%) in the class, leaving one participant who prefers to target teens who are obese in the class (9%). Interestingly, including an automatic bariatric surgery referral in class participants was almost unanimously refused. It is suspected this is due to the survey question not defining who gets an automatic bariatric referral or poor understanding of current guidelines which suggest all adolescents should receive a bariatric surgery referral with BMI > 35 with comorbid disease or for those with BMI > 40 (Armstrong, et al., 2019). No participant reported reservations on following teens in primary care for obesity management.

Phase II

A curriculum was created for reproducible use in primary care to encourage healthy lifestyle education in adolescents. Cardel, et al. (2019) recommend that weight reduction in adolescents should include a multidisciplinary team with physicians, registered nutritionists, exercise physiologists, and psychologists which was the foundation and minimum outline for the curriculum created. The gold standard is at least twenty-six contact hours over a period of two to twelve months, with emphasis on improving health behaviors (Cardel, et al., 2019, Taveras, et al., 2015). This gold standard was extrapolated to the curriculum build which was crafted to include twenty-six contact hours over a seven-month time frame. Small et al. (2014) found that family led interventions are successful in teens in targeting reduction of BMI, which is why the curriculum included family based primary care visits after class completion. The class themes based on guidelines included reduced screen time, more sleep, less sugary beverages, and increased physical activity (Taveras, et al., 2015). These themes are current recommendations by American Medical Association, American Pediatric Society, and the United States Preventative Task Force therefore used as a structural baseline for the curriculum (Barlow, 2007; Brown, Perrin, 2018; Cardel, Atkinson, et al., 2020; Grossman, et al. 2017). As of March 2020, the most recent obesity treatment guidelines were published, recommending integration of behavioral, pharmacologic, and surgical/device interventions simultaneously to improve outcomes (Cardel, Atkinson, et al., 2020). Lastly, Phase I survey results were woven into the curriculum to cater to the specific primary care clinic for future implementation. All of the above was taken into consideration in building the curriculum using the best evidence available.

In building the class a local high school teacher, Ms. Melissa Baker, was consulted to help ensure the class could hold interest of 14-17-year-old students (personal communication,

Cost

No conflicts of interest need to be disclosed. Cost of the build of this educational implementation is low and part of structured doctoral student work. It should be mentioned that the proposed class outline and future class launch does have a projected cost from \$40-400 in totality and this variable cost is dependent on community donations (Appendix G).

Unintended Consequences

Originally, the plan was to adapt an existing curriculum from a nearby specialty clinic offering similar classes for use in primary care. This was not possible due to political red tape. It was also difficult to replicate any published study, as very vague class structures are described in the current literature. Eventually what happened was a curriculum build that was made to cater to the needs of University of Washington Neighborhood Clinics.

One success of building the curriculum from scratch was bringing a huge sponsor to the program which was not originally planned. The local YMCA is interested in hosting future classes and offering facilitators/athletic trainer time to the class in the future. This was a blessing to the growth and sustainability of future wellness classes at University of Washington Neighborhood Clinics overall.

Project Impacts From SARS-CoV-2

Unfortunately, a national pandemic known as SARS-CoV-2/Coronavirus-19 (COVID-19) has set back the launch of Phase III a year at minimum. COVID-19 has also impacted a post build presentation of Phase II (the curriculum) and survey which was originally planned for May 2020. With financial pressures, as of May 2020 due to COVID-19 within the network at large, the presentation of this project to management, providers, and staff will be pushed to 2021 prior

to the predicted launch. The provider post curriculum build survey which was slated for May 2020 will not be conducted due to COVID-19.

Ethical Considerations

The benefit of behavioral weight loss interventions is clear through the literature review, as being successful in helping patients lose weight. Ethically, the patient still has autonomy and the right to choose to be a part of any given health care intervention, including obesity management education, visits, referrals, and pharmacologic therapy. Forcing any such interventions on a patient will result in a fractured relationship between the patient and the provider. All participants invited to the future project can choose not to participate at any time. This future project should be submitted to Institutional Review Board to decide if a formal approval is necessary.

Next Steps & Phase III

It is difficult to review currently published curriculum for comparison, as actual content is difficult to find. This unexpectedly led to the build of this curriculum to be easily replicated and shared among any primary care clinic nationwide.

The cost of this project is low, primarily student hours to complete a Doctorate of Nursing Practice degree. It could be projected that the future implementation of the class will have costs as outlined in the curriculum (Appendix G). The impact of this project is yet to be seen. The curriculum was shaped to include multidisciplinary education workshops followed by the pharmacologic piece as determined by the patient's primary care provider, referral to surgical evaluation if qualified, nutritional and psychosocial support based on current research in adolescent weight loss (Cardel, Atkinson, et al., 2020). This framework is predicted to yield success in adolescent lifestyle changes once implemented.

It is hopeful that the usefulness of this curriculum is wide reaching once primary care clinics can offer such a class. Under the current pressures of COVID-19 it is anticipated that the launch date for the class is pushed at least one year for cost, safety, and participation interest.

Next steps (Phase III) involve using database software collect a list of qualifying patients at the intervention primary care practice. Inviting patients to register for the complete class and structured follow up individualized visits. Phase III is predicted to launch June 2021 (Table 1). It is anticipated that this project will roll out next year, creating more student labor as it grows.

Conclusion

Adolescents should be supported while learning lifelong habits to help support, reverse, and prevent obesity related comorbidities. Treating obesity as a disease in primary care is the future in medicine, particularly with the accessibility primary care offers to all patients. Although treating adults with obesity in primary care is novel, this type of care should be expanded to adolescents given the aggressive and relapsing pattern of obesity. It is the clinicians' duty to treat obesity as a disease with lifelong follow-up. Diagnosing, treating and preventing obesity in adolescents is particularly important for successful outcomes in adults. Offering accessible treatment in primary care is the clear answer to help prevent this lifelong disease and reach the most patients. This projects curriculum was built for use at one clinic, but widespread use at any primary care clinic is encouraged.

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Appendix A

Class 1 of 6 Outline

Behavior Change through motivation, interests & strengths: Facilitator UWNC

Lesson Topic for 6/6/2021: Brainstorm and reflect on motivators, personal interests and strengths

Summary of Unit and Lesson

Unit Summary: The development of new tools helps drive intrinsic motivation.

Lesson Summary

Time: 120 min.

This lesson will provide the opportunity for students to reflect as a group and workshop individually.

- Introductions **10 mins**
- Students will watch videos below **15 mins**
 - <https://www.youtube.com/watch?v=WQiwBScOOtA> What is motivation? 2min
 - https://www.ted.com/talks/cameron_russell_looks_aren_t_everything_believe_me_i_m_a_model Looks aren't everything 10 mins (Cameron, R., 2012)
- Topic: Discussion on motivation targeting healthy lifestyle **20 mins**

Warm up:

1. What is motivation? What is a healthy lifestyle? Why is a healthy lifestyle important?
2. Today we are discussing what motivates you to live a healthy lifestyle. What do you think the purpose of this activity is?

(Hint: There are many reasons...be creative).

3. What are some important "strengths" to follow when picking interests to help you stay motivated to live a healthy lifestyle?

- Group identifies challenges. Group shares personal solutions. **10 mins**
- Reflect time: Students will journal specific questions identifying personal strengths and interests. **15 mins**

(Facilitator will assess how students are doing)

- Break (post reflection, healthy snack prep) **10 mins**
- Share & questions time: Students will share one personal strength and motivator if desired.
Time to write questions on 5x5 index cards for anonymous Q/A next class **10 mins**
- Movement: stretch and meditation to rest and reflect on goals of wellness workshop
Students will participate in mindful meditation **30 mins**

LEARNING TARGETS AND OUTCOMES

Key Knowledge to Acquire:		Essential Questions/Statements:	Desired Understandings
<p>Students will know...</p> <p>Recognize interests and strengths that pertain to active lifestyle</p>	<p>Students will be able to...</p> <ul style="list-style-type: none"> • Use their understanding of how motivation works to pick 2 behavior changes for the week • Define a healthy lifestyle • Focus on personal interests • Communicate their ideas effectively • Identify personal strengths targeting healthy lifestyle choices • Discuss how motivation can increase or decrease lifestyle choices 	<ul style="list-style-type: none"> • What makes a healthy lifestyle? • How does internal interests drive motivation for increase exercise habits? • Why is reflecting on personal interests to increase healthy behaviors important? • Why is motivation important for change? 	<ul style="list-style-type: none"> • Depict three healthy lifestyle points: Less soda, more activity, < 2 hr screen time • Picking personal interests to drive behavior change increases motivation • Personal reflection can help create a clear picture of strengths that contribute to healthy living • Working as a unit in the household can increase motivation to live a healthy lifestyle

Materials/Resources:

Student notebooks, index cards, speaker, yoga mats (12), mindful meditation (head space app on smart phone)

Assessments:

Formative Assessment: (Informal): As instructor is walking around the room during journal time, they will make observations about how individuals are doing, prompting writing if needed. Also, they will read the student's reflections following the lesson to assess my learning targets.

Topic Discussion:

What is healthy lifestyle?

Reduce soda intake; Screen time < 2 hours/day ; Increase activity (non exercise activity included).

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Appendix B

Class outline 2 of 6

Nutrition labels, dining out, & fast food: Facilitator UWNC

Lesson Topic 2/6 for 6/13/2021: What are nutrition labels and how do we use them?

Summary of Unit and Lesson

Unit Summary: Using a strategy to read nutrition labels can help give personal insight into what food is. Discuss how dining out and fast food can affect daily intake.

Lesson Summary

Time: 120 min.

This lesson will provide the opportunity for students to reflect as a group and workshop individually.

- Introduction to lesson **20 mins**

Warm up:

1. What a nutrition label? How do we read a nutrition label?
2. What is an added sugar vs carbohydrate?
3. Today we are discussing nutrition labels, dining out and fast food. What do you think the purpose of this activity is?

<https://www.tiktok.com/@starvinggradstudent?lang=en> blood type diet- finger/white/blue shirt **5 mins**

https://ed.ted.com/best_of_web/IzCL8SMP Myths in school nutrition **5 mins**

- Topic: What are nutrition labels and how do we use them? What are carbohydrates and added sugars? **20 mins**

https://www.ted.com/talks/nicole_avena_how_sugar_affects_the_brain 4 min

https://www.ted.com/talks/robert_lustig_sugar_hiding_in_plain_sight 4 min

<https://www.tiktok.com/@starvinggradstudent?lang=en> Artificial Sweetener

<https://www.tiktok.com/@starvinggradstudent?lang=en> Friends asking for nutrition advice

<https://www.tiktok.com/@starvinggradstudent?lang=en> cucumber/sugar/chicken/almonds—

100 calorie

- 100 calorie name game with real food/boxes **30 mins**
 1. Set up boxes of 10 different common foods from pantry. Prep paper on table
 2. Let students walk around and serve up/pour 1 serving, Write name next to display (10 mins)
 3. Next round- let students serve up/pour 100 calories. Write name next to display (10 mins)
 4. Reveal real serving size of each – winner (5 mins)
 5. Reveal 100 calories of each – winner (5 mins)
- Reflect time: Students will journal specific questions identifying when they can personally read a label twice a week. **10 mins**
- Break (post reflection) **10 mins**
- **Hands on:** <https://www.tiktok.com/@starvinggradstudent?lang=en> poop emoji cookies demo **30 mins**

Ingredients: stand mixer, 4 egg whites, ½, teaspoon vanilla, salt, 100g powdered erthitol, teaspoon coco powder, piping bags, spoon and piping bags , oven , coco powder .

stand mix egg whites and salt, vanilla. mix dry ingredients. Add dry ingredients slowly. Stiff peaks- pipe out into turds. 225 degrees, 60 min. sprinkle with coco.

112 cal for entire plate

- Share & questions time: Students will share thing they have learned when reading nutrition labels, dinning out, and picking fast food. Time to write questions on 5x5 index cards for anonymous Q/A next class **10 mins**

Key Knowledge to Acquire:		Essential Questions/Statements:	Desired Understandings
<p>Students will know...</p> <p>Interpret serving size, calories from a nutrition label.</p> <p>Describe what carbohydrate s are vs added sugars</p>	<p>Students will be able to...</p> <ul style="list-style-type: none"> • Use their understanding of how to read nutrition labels and apply serving sizes • Define an added sugar • Focus on top fast food picks and look up nutrition label 	<ul style="list-style-type: none"> • How do I determine calories in entire box of X? • What is the difference between natural carbohydrates and added sugar? • Why should I think about looking at nutrition labels when I eat out or get fast food? 	<ul style="list-style-type: none"> • State calorie content per serving, per box for three items • Look up favorite restaurant menu for review

LEARNING TARGETS AND OUTCOMES**Materials/Resources:**

Nutrition boxes x 10, paper sheet, cups, serving spoon (10), Prize (2 5 dollar gift cards) index cards, speakers (music), yoga mats (12), internet connection, stand mixer, 4 egg whites, ½ teaspoon vanilla, salt, 100g powdered erthitol, teaspoon coco powder, piping bags, spoons, oven , cookie sheet/liner

Entry Task:

Warm up:

1. What a nutrition label? How do we read a nutrition label?
2. What is an added sugar vs carbohydrate?
3. Today we are discussing nutrition labels, dinning out and fast food. What do you think the purpose of this activity is?

Topic Discussion:

REVIEW:

Serving Size

Calories

Total Fat

Total Carbohydrate

Sugars (added)

Protein

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Appendix C

Class outline 3 of 6

Body image: Instructor UWNC- Social Worker & HFF Yoga Teacher

Lesson Topic 3/6 for 6/20/2021: Class 3: Body image, self-esteem, self-objectification, bullying

Summary of Unit and Lesson

Unit Summary: Discussion on body image and building a healthy relationship with self-esteem, self-objectification, and self-worth. Identify bullying behavior and how to address it.

Lesson Summary

Time: 120 min.

- Introductions **20 mins**

https://www.ted.com/talks/ashley_graham_plus_size_more_like_my_size - plus size model

10 min

https://www.ted.com/talks/winnie_harlow_how_i_define_beauty - bullying **7 min**

Warm up:

1. What is confidence and self-esteem and self-worth? Self-objectification?
2. How do people get high self-esteem vs. low self-esteem? (discussion)
3. What is bullying? How does bullying effect self-worth?

- Topic: <https://ed.ted.com/lessons/3-tips-to-boost-your-confidence-ted-ed#watch>

confidence building **5min (30 minutes)**

Tips for review- discuss and review as a class (*handout*):

1. Make two lists: one of your strengths and one of your achievements. Try to get a supportive friend or relative to help you with these lists. Keep the lists in a safe place and read through them every morning.
 2. Think positively about yourself. Remind yourself that, you are a unique, special, and valuable person, and that you deserve to feel good about yourself. Identify and challenge any negative thoughts about yourself such as 'I'm a loser', 'I never do anything right', and 'No one really likes me'.
 3. Pay special attention to hygiene: Take a shower, brush your hair, trim your nails.
 4. Wear clean clothes that make you feel good about yourself.
 5. Eat good food as part of a healthy, balanced diet. Make meals a special time, even if you are eating alone. Turn off the TV, set the table, light a candle, and make a moment to feel grateful.
- article continues after advertisement
6. Exercise regularly. Go for a walk every day, even if it is cold or rainy, and take more vigorous exercise (exercise that makes you sweat) two or three times a week.
 - 7.. Do more of the things that you enjoy. Go ahead and spoil yourself. Do at least one thing that you enjoy every day.
 11. Get artistic. Activities like poetry, music, and dance, among many others, enable you to express and explore your emotions, interact positively with others, and reduce your levels of stress.
 12. Be nice to people, and do nice things for them. Strike up a conversation with the postman or shopkeeper, invite a neighbor round for tea, visit a friend who is sick, get

involved with a local charity... Putting a smile on someone's face is bound to put one on yours.

Adapted from : Burton, Neel (2012). Building confidence and self-esteem. Retrieved from <https://www.psychologytoday.com/us/blog/hide-and-seek/201205/building-confidence-and-self-esteem>.

- Reflect time: Students will journal thoughts on bullying and personal experiences in experiencing bullying or witnessing bullying. Reflect on self-esteem levels this past two weeks **20 mins**
- Break (post reflection) **10 mins**
- Get up and move – Intro to yoga postures (HFF teacher) **30 minutes**
- Share & questions time: Write questions on 5x5 index cards for anonymous Q/A next class. **Pick one song for yoga session next class! 10 mins**
- **HOMEWORK:**

Student: Journal lists your strengths and your achievements. Ask people in your life to help build your list

Facilitator: Email song list to Hot Feet Fitness Instructor to build class for next week

LEARNING TARGETS AND OUTCOMES

Key Knowledge to Acquire:		Essential Questions/Statements:	Desired Understandings
<p>Students will know...</p> <p>Identify personal strengths to foster self confidence and self-esteem.</p> <p>Identify bullying.</p>	<p>Students will be able to...</p> <ul style="list-style-type: none"> • Reflect on personal strengths • Describe bullying and apply one example (hypothetical or real) 	<ul style="list-style-type: none"> • How do I increase my own self confidence? 	<ul style="list-style-type: none"> • State one activity daily to increase self-esteem. • State one personal strength

Materials/Resources:

Index cards, speakers (music), yoga mats (12), internet connection

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Appendix D

Class Outline 4 of 6

Class 4: Staying fit across lifespan- UWNC Facilitator & HFF Teacher

Lesson Topic 4/6 for 6/27/2021: Class 4- Discuss exercise, movement, and sedentary lifestyles.

Summary of Unit and Lesson

Unit Summary: Discussion on exercise across the lifespan and finding enjoyment in movement. Identify sedentary behaviors and ways to increase activity into our daily life.

Lesson Summary

Time: 120 min

- Introductions **10 mins**

https://www.ted.com/talks/murat_dalkilinc_why_sitting_is_bad_for_you - Sitting and movement **5 mins**

https://ed.ted.com/best_of_web/WaARd3SV Exercise science **5 mins**

- Topic: Brainstorm favorite activities, movement, and sedentary activities. Discuss how to increase non-exercise activity daily **20 mins**
- Exercise time: Yoga class taught by Hot Feet Fitness instructor using student's song choices **40mins**
- Break **10 mins**
- Stretching talk **10 mins**

https://ed.ted.com/best_of_web/jRqHvBs9#watch What does Stretching do to body? **8 min**

- Share & questions time: *Pick one vegetable to chop during next class.* Time to write questions on 5x5 index cards for anonymous Q/A next class **10 minutes**
- Wrap up: Yin yoga, meditation taught by Hot Feet Fitness Instructor **20 mins**

LEARNING TARGETS AND OUTCOMES

Key Knowledge to Acquire:		Essential Questions/Statements:	Desired Understandings
Students will know... Identify non-exercise movement	Students will be able to... <ul style="list-style-type: none"> • Describe one non-exercise activity to add into lifestyle daily for life • Verbalize one exercise activity 	<ul style="list-style-type: none"> • How do I pick an exercise activity for life? 	<ul style="list-style-type: none"> • Recognize that exercise must be enjoyable to be sustainable for life. • Recognize two non-exercise behaviors to do daily for life.

Materials/Resources:
Hot Fit Fitness yoga instructor, index cards, speakers (music), yoga mats (12), internet connection

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Appendix E

Class Outline 5 of 6

Sleep and Screen Time: Facilitator UWNC

Lesson Topic for 7/5/2021: Sleep and screen time daily success

Summary of Unit and Lesson

Unit Summary: Sleep plays an important role in maintaining healthy lifestyle in adolescents through adulthood. Screen time can affect overall sleep patterns, and sedentary activity levels.

Discuss how sleep and screen time can affect personal success in a healthy lifestyle.

Lesson Summary

Time: 120 min.

- Introductions – Highs and lows of week **15 minutes**

Students will watch videos below **30 minutes**

<https://ed.ted.com/lessons/what-would-happen-if-you-didn-t-sleep-claudia-aguirre#watch>

Sleep 5 min

<https://www.youtube.com/watch?v=WCT5JcXMPw> 8 min

https://www.ted.com/talks/adam_alter_why_our_screens_make_us_less_happy?referrer=playlist-the_pros_and_cons_of_screens#t-2844 Why screens don't make us happy- 10 min

- Topic: **20min**

Screen time:

Open discussion on Pros and Cons on screen time (display on white board)

Benefits include exposure to new ideas and knowledge acquisition, increased opportunities for social contact and support, and new opportunities to access health-promotion messages and

information. Risks include negative health effects on weight and sleep; exposure to inaccurate, inappropriate, or unsafe content and contacts; and compromised privacy and confidentiality

(Pediatrics, 2016)

Sleep:

<https://ed.ted.com/lessons/what-would-happen-if-you-didn-t-sleep-claudia-aguirre#watch> - pop quiz to guide conversation

- Break (post reflection, healthy snack prep) **10 mins**
- Reflect time: **15 mins**

Students will journal specific questions identifying personal strengths and interests:

- 1) Do you feel addicted to screens?
 - 2) Do you argue daily with family about screen time?
 - 3) The recommended screen time limit for teens and adults is 2 hours a day (not school related) - what do you think about this guideline?
 - 4) What is your “white space” filled with? How would you fill a “no phone/social media” time with and how long each day?
- Share & questions time: ***What vegetables do you want to chop?* 10 mins**

LEARNING TARGETS AND OUTCOMES

Key Knowledge to Acquire:		Essential Questions/Statements:	Desired Understandings
Students will know... How to identify reasons for sleep. How to identify ways to reduce screen time	Students will be able to... <ul style="list-style-type: none"> Choose a wake time for the next week Consider one way to spend “white time” when not on a screen 	<ul style="list-style-type: none"> Why do teens need more sleep than adults? How can screen time effect mood? 	<ul style="list-style-type: none"> Start conceptualizing and planning interventions to reduce screen time to < 2 hours a day Create a wake time plan to aim for 8-10 hours of sleep a night

Materials/Resources:
<p>Student notebooks, index cards, white board/markers</p> <p>Bring vegetables (consider 5 total, one for each student) to next class</p>

References:

Media Use in School-Aged Children and Adolescents (2016). *Pediatrics*.

138 (5) e20162592; DOI: 10.1542/peds.2016-2592

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Appendix F

Class Outline 6 of 6

Wrap up and Chop: Facilitator UWNC & PCC Chef

Lesson Topic for 7/11/2021: Plan 3 long term interventions for a healthy year

Summary of Unit and Lesson

Unit Summary: The review and wrap up with mindset to personalize short and long term goals for the next 12 months.

Lesson Summary

Time: 120 min.

- Introductions: Highs and lows of the week **10 mins**
- Discuss in open forum ways to continue healthy lifestyle **10 mins**

Guide conversation: Reduce soda intake; Screen time < 2 hours/day ; Increase activity (non exercise activity included)

Topic: Lets chop! **1 hour 10 mins**

PCC chef demo and hands on of chopping favorite vegetables

- Break (post reflection, healthy snack prep) **10 mins**
- Review next program goals:

Biweekly visits with PCP – 20 min appointment times. Goals: improved blood pressure, mood, improved self-esteem, and increased activity; Social worker touch in – 40 min appointment every other month if desired; Nutrition based visit – 40 min

Share & questions time: Wrap up- reflections/thoughts. Students will share favorite class they enjoyed or did not enjoy **20 min**

LEARNING TARGETS AND OUTCOMES

Key Knowledge to Acquire:		Essential Questions/Statements:	Desired Understandings
Students will know... One safe knife skill	Students will be able to... <ul style="list-style-type: none"> • Chop one vegetable • Describe one way to prepare vegetable of choice 	<ul style="list-style-type: none"> • What makes a healthy lifestyle? 	<ul style="list-style-type: none"> • Safe knife skills to carry forward into the home kitchen • Enjoy prepping and cooking vegetables for sustainable health • Depict three healthy lifestyle points: Less soda, more activity, < 2 hr screen time

Materials/Resources:
Student notebooks, cutting boards (12), knives (12), PCC chef time, vegetables picked by students (12 each)

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Appendix G

Supply List and Cost Estimate

	SUPPLY:	PREDICTED COST:
EVERY CLASS:		
	Facilitator time – 120min a week x 6	
	Student notebook (12) offered first class and to be brought to each class	\$20
	Index cards (100)	\$3
	Speaker	
	Yoga mats (12)	\$100 (donation?)
	Internet connection	
	Healthy snack each class	\$100 (donation?)
	Paper plates	\$5
	Serving spoons	

	Cups	\$5
	Water	
	Computer with Projection	
CLASS 1		
	Head Space App	
CLASS 2		
	Nutrition Boxes x10	donation
	Table paper	
	Cups	\$10
	Serving spoons	
	Markers	
	Gift Card \$5x2	\$10 dollar (donation?)
	Stand mixer 4 egg whites ½ teaspoon vanilla ½ teaspoon salt 100g powdered erthitol 1 teaspoon coco powder piping bags spoons oven cookie sheet/liner	\$10 (donation?)

CLASS 3		
	Yoga Instructor	\$20 (donation?)
CLASS 4		
	Yoga Instructor	\$20 (donation)
CLASS 5		
	White board	
CLASS 6		
	Chef /Chef owned supplies	\$100 (donation?)
	Vegetables (6 pounds)	\$20 (donation?)
TOTAL:		\$43 - \$423

***If left blank considered a basic Primary Care Office donation**

Supply List in Detail:

Every Class:

Facilitator time – 120min a week x 6

Student notebook (12) offered first class and to be brought to each class

Index cards (100)

Speaker

Yoga mats (12)

Internet connection

Healthy snack each class

Paper plates

Serving spoons

Cups

Water

Computer with classroom projection

Break = bathroom and healthy snack/water options to class

Class 1

Head space app (free) on smart phone

Class 2

Nutrition boxes x 10

Paper sheets at each box (10)

Cups

Serving spoons (10)

Markers (12)

5-dollar gift card x 2 (Starbucks donation?)

Stand mixer

4 egg whites

½ teaspoon vanilla

½ teaspoon salt

100g powdered erthitol

1 teaspoon coco powder

pipng bags

spoons

oven

cookie sheet/liner

Class 3

See handout – print

Yoga Instructor – Hot Feet Fitness : Free intro class

Class 4

Yoga Instructor – Hot Feet Fitness: 40 min flow with student’s music

Class 5

White board/large paper stand

Class 6

PCC chef time (2 hour)

Cutting boards (12)

Knives (12)

5 Vegetables picked by students (12 each)